

Remarks:

Reconsideration of the application is requested.

Claims 1-12 remain in the application.

In the third paragraph on page 3 of the Office action, claims 1-12 have been rejected as being obvious over Comstock (U.S. Patent No. 1,898,977) in view of Babbitt (U.S. Patent No. 1,984,007) under 35 U.S.C. § 103.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

two outer covering layers having contours and disposed at a distance from one another, the two outer covering layers connected to one another in a vacuum-tight manner by a connecting profile running along the contours, the two outer covering layers

together with the connecting profile enclosing an  
evacuated intermediate space filled with an  
evacuatable heat insulating material, at least one of  
the two outer covering layers having an aperture  
formed therein; and

a tube section including two end sections, one of  
the two end sections having a circumferentially  
positioned flange-shaped expanded and flattened  
region fixed in a vacuum-tight manner <sup>or bolt</sup> ~~at~~ the  
aperture of the at least one of the two outer  
covering layers and being formed to compensate for  
positional imprecisions between the aperture and the  
tube section.

Applicants respectfully disagree with the Examiner's  
interpretation of the statement that the inner and outer  
shells afford a suitable space therebetween ... which may be  
exhausted of air. It is the applicants' position, that claim  
1 specifically calls for: "the two outer covering layers  
together with the connecting profile enclosing an evacuated  
intermediate space." (Emphasis added by applicants.).

Although Comstock provides a space, which can be exhausted of  
air, it is in no way comparable to "enclosing an evacuated  
intermediate space" as in the invention of the instant  
application. Comstock is filled with many statements proving

he cannot achieve what is claimed by the invention of the instant application. First, he states on page 1, line 98, to page 2, line 20, that at the time of his invention it was "extremely difficult to provide absolutely air or gas-tight housings of considerable size in commercial quantities, especially when these vacuum containers are partially formed of metal sheets with soldered and/or welded joints or seams." Comstock does go on to disclose that it is possible to provide vacuum insulating chambers of this character which under ordinary conditions and use have only a low leakage rate (page 2, lines 3-7). He further discloses that in order to maintain a comparatively high vacuum within the insulating chamber pumping means may be arranged to be more or less continuously operable, for example being tied into the cooling system of the unit (page 2, lines 8-15). Comstock further discloses that it is desirable to provide means to exhaust non-condensable gases from the system and to permit continued maintenance of a low pressure therein, since gas is likely to find its way slowly into the system from or through the metal walls or the joints of the same, and thus cause the pressure within the system to unduly rise (page 3, line 125 to page 4, line 2). Comstock further goes on to disclose his method for exhaustion of these gases (page 4, lines 3-103). Based on the above-noted disclosures of Comstock it is blatantly obvious that the space to be evacuated of air provided in Comstock is in no way comparable to the invention of the instant

application, which provides enclosing an evacuated intermediate space.

Comstock, which issued in 1933, discloses a vacuum insulation as applied to refrigerators and the like. Comstock sets forth on page 1, line 98, to page 2, line 20, that at the time of his invention it was "extremely difficult to provide absolutely air or gas-tight housings of considerable size in commercial quantities, especially when these vacuum containers are partially formed of metal sheets with soldered and/or welded joints or seams." Comstock at page 1, line 97, to page 2, line 3 (emphasis added by applicants). Because, in Comstock's time, the vacuum present in insulation walls leaked and was difficult to maintain, Comstock invented a "pumping means to maintain a comparatively high vacuum within the insulating chamber." Comstock at page 2, lines 7 to 10. The pumping means is configured to be used "in substantial continuous operation when the vacuum wall is in use as an insulating factor." Comstock at page 10, lines 9 to 12 (emphasis added by applicants). It is this pumping means that is the primary subject of Comstock.

It is noted that on page 3, line 23 through page 4, line 2 of the specification it is stated that a tube section including two end sections, and one of the two end sections having a circumferentially positioned flange-shaped expanded and

flattened region fixed in a vacuum-tight manner in the aperture of the at least one of the two outer covering layers. Furthermore, on page 4, lines 10-15 of the specification it is stated that as a result of the bushing being configured as a tube section having flange surfaces fitted on at least one of its two ends, the bushing can be fixed with a high degree of process reliability on both covering layers and in large-scale production, such that it is stable in the long term and is vacuum-tight. It is also noted that on page 7, lines 7-15 of the specification it is stated that a permanently vacuum-tight connection between the covering layers of the heat-insulated wall and the flange-like expanded and flattened regions of the tube section can be produced in a particularly simple manner when the covering layers and the tube section together with the flange-like expanded and flattened region(s) disposed on it are composed of stainless steel or steel and are connected to one another by a beam-welding process.

On page 2 under the Response to Arguments heading of the Office action, the Examiner admits "that Comstock expresses the desirability of forming a sealed container that holds a vacuum but has not achieved a vacuum-tight manner of connecting the two layers with a profile" (emphasis supplied by applicants). The Examiner goes on to conclude that it is apparent that Babbitt does not suffer this deficiency. Applicants respectfully disagree with this conclusion as the

Babbitt reference specifically discloses on page 2, column 2, lines 34-38, "that the vacuum may be increased at any time by connecting a vacuum pump or the like to the valve, so that the vacuum may be restored at any time after the unit has been used or while it is in use" (emphasis added by applicants). Contrary to the opinion of the Examiner, this statement obviously indicates that the Babbitt reference cannot maintain a vacuum during its service life. Therefore, the Babbitt reference does not make up for the deficiencies of the Comstock reference.

These two references do not show or suggest:

two outer covering layers having contours and disposed at a distance from one another, the two outer covering layers connected to one another in a vacuum-tight manner by a connecting profile running along the contours, the two outer covering layers together with the connecting profile enclosing an evacuated intermediate space filled with an evacuable heat insulating material, at least one of the two outer covering layers having an aperture formed therein; and

a tube section including two end sections, one of the two end sections having a circumferentially

positioned flange-shaped expanded and flattened region fixed in a vacuum-tight manner at the aperture of the at least one of the two outer covering layers and being formed to compensate for positional imprecisions between the aperture and the tube section,

as recited in claim 1 of the instant application.

Nowhere do Comstock or Babbitt disclose or suggest any aspect of positional tolerance correction, let alone describe a tube section end that compensates for positional imprecisions between the aperture and the tube section as set forth in the last paragraph of claim 1.

At best, applicants respectfully believe that any teaching, suggestion, or incentive possibly derived from Comstock and/or Babbitt is only present with hindsight judgment in view of the instant application. "It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. . . . The references themselves must provide some teaching whereby the applicant's combination would have been obvious." In re Gorman, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (emphasis

added). Here, no such teachings are present in any of the cited references.

Applicants respectfully believe that vacuum-insulation technology is not a subdivision of insulation technology as a whole and, therefore, is not within the preview of one having ordinary skill in the art of insulation technology. Heat blockage based on vacuum-insulation technology is not a subgroup of conventional heat insulation technology. Conventional technology almost exclusively uses foaming heat blocking materials, such as polyurethane or the like. Thus, such technology calls upon the knowledge of a chemist. Vacuum-insulation technology, in contrast, is concerned mainly with free pathways of air molecules. Consequently, the knowledge of a physicist prevails. By definition, the different types of problems arising in these two technologies (which run parallel to each other rather than in series) require the use of different experts for overcoming the problems separately conditioned by each of the two different technologies.

It is well settled that almost all claimed inventions are but novel combinations of old features. The courts have held in this context, however, that when "it is necessary to select elements of various teachings in order to form the claimed invention, we ascertain whether there is any suggestion or



motivation in the prior art to make the selection made by the applicant". Interconnect Planning Corp. v. Feil, 227 USPQ 543, 551 (Fed. Cir. 1985) (emphasis added). "Obviousness can not be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination". In re Bond, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). "Under Section 103 teachings of references can be combined only if there is some suggestion or incentive to do so." ACS Hospital Systems, Inc. v. Montefiore Hospital et al., 221 USPQ 929, 933, 732 F.2d 1572 (Fed. Cir. 1984) (emphasis original). "Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be 'clear and particular.'" Winner Int'l Royalty Corp. v. Wang, 53 USPQ2d 1580, 1587, 202 F.3d 1340 (Fed. Cir. 2000) (emphasis added; citations omitted); Brown & Williamson Tobacco Corp. v. Philip Morris, Inc., 56 USPQ2d 1456, 1459 (Fed. Cir. Oct. 17, 2000). Applicants believe that there is no "clear and particular" teaching or suggestion in Comstock incorporate the features of Babbitt, and there is no teaching or suggestion in Babbitt to incorporate the features of Comstock. Furthermore, as stated above neither Comstock nor Babbitt can maintain a vacuum during their respective service lives. Also, neither Comstock nor Babbitt disclose or suggest any aspect of positional tolerance correction, let alone describe a tube

section end that compensates for positional imprecisions between the aperture and the tube section as set forth in the last paragraph of claim 1. Therefore, since both references have the same deficiencies, they cannot be combined to obviate the invention of the instant application as claimed.

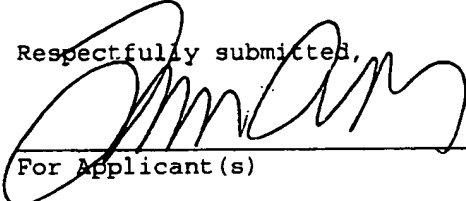
It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-12 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

Please charge any other fees which might be due with respect  
to Sections 1.16 and 1.17 to the Deposit Account of Lerner &  
Greenberg P.A., No. 12-1099.

Respectfully submitted,

  
For Applicant(s)

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